



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,450	09/09/2003	Richard Martin	14189US02	4742
23446 7590 01/24/2007 MCANDREWS HELD & MALLOY, LTD 500 WEST MADISON STREET SUITE 3400 CHICAGO, IL 60661			EXAMINER GOETZE, SIMON A	
			ART UNIT 2617	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/24/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/658,450

Applicant(s)

MARTIN ET AL.

Examiner

Simon A. Goetze

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. **Claim 12** is objected to because of the following informalities: Claim 12, a machine-readable storage, having stored thereon a computer program having at least one code section, claims dependency from claim 1, which is a method. For the purposes of this examination, claim 12 is understood as depending from claim 9. Appropriate correction is required.
2. **Claim 19** is objected to because of the following informalities: The general structure of the preceding claims implies that claim 19's processor should be adapted to "return" at least one available port instead of "select", and has been read as such for the purposes of this examination. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

Art Unit: 2617

2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
6. **Claims 1-25** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Gai et al. (US Patent 6,032,194)** in view of **Eglin (US Patent Application Publication 2004/0047320)**.

Consider **claim 1**, Gai et al. discloses a method for access point aggregation and resiliency in a local area network (*Abstract; Column 5, Lines 16-19 and 35-53*), the method comprising:

determining at least one available switch port having a capability to handle a first local area network (*Column 7, Lines 20-30; Column 10, Lines 49-67; Column 11, Lines 1-15*), said first local area network having a first default switch port (*Column 11, Lines 8-15 and 41-44*);

provisioning said at least one available switch port to provide service to said first local area network (*Column 10, Lines 1-12; Column 11, Lines 8-24 and 41-51; Column 12, Lines 19-27*); and

Art Unit: 2617

communicating information using at least one of said first default switch port and said at least one provisioned switch port (*Column 11, Lines 8-24 and 41-51; Column 12, Lines 19-27 and 32-42*).

However, Gai et al. discloses this network resiliency with port reconfiguration employed over a wired local area network, containing a number of hosts or end stations which are not described, connected to a switch, while failing to specifically disclose a hybrid wired/wireless local area network.

In related prior art, Eglin discloses a network which employs reconfiguration to groups of access points connected to a switch to implement connection resiliency. The network is arranged as a hybrid wired/wireless local area network by providing the wireless access points 106, 108, 110, etc. shown in Figure 1 (*Page 2, Paragraphs 0036 and 0029; Page 3, Paragraphs 0030 and 0036*).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to incorporate the teachings of Eglin with those of Gai et al. in order to employ connection protection in a wireless network which allows users to roam freely while maintaining a connection.

Consider **claim 9**, Gai et al. discloses a machine-readable storage, having stored thereon a computer program having at least one code section for access point aggregation and resiliency in a local area network (*Abstract; Column 5, Lines 16-19 and 35-53*), the at least one code section executable by a machine for causing the machine to perform the steps comprising:

Art Unit: 2617

determining at least one available switch port having a capability to handle a first local area network (*Column 7, Lines 20-30; Column 10, Lines 49-67; Column 11, Lines 1-15*), said first local area network having a first default switch port (*Column 11, Lines 8-15 and 41-44*);

provisioning said at least one available switch port to provide service to said first local area network (*Column 10, Lines 1-12; Column 11, Lines 8-24 and 41-51; Column 12, Lines 19-27*); and

communicating information using at least one of said first default switch port and said at least one provisioned switch port (*Column 11, Lines 8-24 and 41-51; Column 12, Lines 19-27 and 32-42*).

However, Gai et al. discloses this network resiliency with port reconfiguration employed over a wired local area network, containing a number of hosts or end stations which are not described, connected to a switch, while failing to specifically disclose a hybrid wired/wireless local area network.

In related prior art, Eglin discloses a network which employs reconfiguration to groups of access points connected to a switch to implement connection resiliency. The network is arranged as a hybrid wired/wireless local area network by providing the wireless access points 106, 108, 110, etc. shown in Figure 1 (*Page 2, Paragraphs 0036 and 0029; Page 3, Paragraphs 0030 and 0036*).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to incorporate the teachings of Eglin with those of Gai et al. in order to employ connection protection in a wireless network which allows users to roam freely while maintaining a connection.

Art Unit: 2617

Consider **claim 17**, Gai et al. discloses a system for access point aggregation and resiliency in a local area network (*Abstract; Column 5, Lines 16-19 and 35-53*), the system comprising:

at least one processor adapted to determine at least one available switch port having a capability to handle a first local area network (*Column 7, Lines 20-30; Column 10, Lines 49-67; Column 11, Lines 1-15*), said first local area network having a first default switch port (*Column 11, Lines 8-15 and 41-44*);

at least one processor adapted to provisioning said at least one available switch port to provide service to said first local area network (*Column 10, Lines 1-12; Column 11, Lines 8-24 and 41-51; Column 12, Lines 19-27*); and

at least one processor adapted to communicate information using at least one of said first default switch port and said at least one provisioned switch port (*Column 11, Lines 8-24 and 41-51; Column 12, Lines 19-27 and 32-42*).

However, Gai et al. discloses this network resiliency with port reconfiguration employed over a wired local area network, containing a number of hosts or end stations which are not described, connected to a switch, while failing to specifically disclose a hybrid wired/wireless local area network.

In related prior art, Eglin discloses a network which employs reconfiguration to groups of access points connected to a switch to implement connection resiliency. The network is arranged as a hybrid wired/wireless local area network by providing the wireless access points 106, 108, 110, etc. shown in Figure 1 (*Page 2, Paragraphs 0036 and 0029; Page 3, Paragraphs 0030 and 0036*).

Art Unit: 2617

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to incorporate the teachings of Eglin with those of Gai et al. in order to employ connection protection in a wireless network which allows users to roam freely while maintaining a connection.

Consider **claim 2**, as applied to claim 1 above, Gai et al. as modified by Eglin further discloses that the determining further comprises selecting said at least one available switch port from a reserved pool of available switch ports (*Figure 3D – Column 11, Lines 41-52; Column 12, Lines 13-27 and 37-42 and 46-55*).

Consider **claim 3**, as applied to claim 2 above, Gai et al. as modified by Eglin further discloses returning said selected at least one available switch port to said reserved pool of available switch ports upon abatement of a need to utilize said provisioned at least one available switch port (*Figure 3E – Column 14, Lines 37-48*).

Consider **claim 4**, as applied to claim 1 above, Gai et al. as modified by Eglin further discloses selecting said at least one available switch port from at least one of a first switching element and a second switching element, said first default switch port being associated with said first switching element (*the different ports of the access switch are connected to different backbone switches, additionally some local area networks can communicate directly with more than one switch – Column 10, Lines 49-67; Column 11, Lines 1-7 and 8-24 and 41-51; Column 12, Lines 19-27*).

Consider **claim 5**, as applied to claim 1 above, Gai et al. as modified by Eglin further discloses determining at least one a second available switch port having a capability to handle a

Art Unit: 2617

second access point group, said second access point group having a second default switch port *(the same procedure is followed for each local area network connected to the switch for determining a transmission port - Column 7, Lines 20-30; Column 10, Lines 49-67; Column 11, Lines 1-15).*

Consider **claim 6**, as applied to claim 5 above, Gai et al. as modified by Eglin further discloses provisioning at least a third available switch port to provide service to said second access point group *(Column 10, Lines 1-12; Column 11, Lines 8-24 and 41-51; Column 12, Lines 19-27).*

Consider **claim 7**, as applied to claim 6 above, Gai et al. as modified by Eglin further discloses switching between any two of said at least one available switch port, said at least a second available switch port and said at least a third available switch port *(Column 11, Lines 8-24 and 41-51; Column 12, Lines 19-27 and 32-42).*

Consider **claim 8**, as applied to claim 1 above, Gai et al. as modified by Eglin further discloses switching between said default switch port and said at least one available switch port in a time period less than on the order of a few milliseconds from at least one of a detectable link failure and a configuration change *(change occurs at or about the same instant, and the connection is tested every few milliseconds - Column 12, Lines 4-12; Column 14, Lines 40-51).*

Consider **claim 10**, as applied to claim 9 above, Gai et al. as modified by Eglin further discloses code for selecting said at least one available switch port from a reserved pool of available switch ports *(Figure 3D - Column 11, Lines 41-52; Column 12, Lines 13-27 and 37-42 and 46-55).*

Art Unit: 2617

Consider **claim 11**, as applied to claim 10 above, Gai et al. as modified by Eglin further discloses code for returning said selected at least one available switch port to said reserved pool of available switch ports upon abatement of a need to utilize said provisioned at least one available switch port (*Figure 3E – Column 14, Lines 37-48*).

Consider **claim 12**, as applied to claim 9 above, Gai et al. as modified by Eglin further discloses code for selecting said at least one available switch port from at least one of a first switching element and a second switching element, said first default switch port being associated with said first switching element (*the different ports of the access switch are connected to different backbone switches, additionally some local area networks can communicate directly with more than one switch – Column 10, Lines 49-67; Column 11, Lines 1-7 and 8-24 and 41-51; Column 12, Lines 19-27*).

Consider **claim 13**, as applied to claim 9 above, Gai et al. as modified by Eglin further discloses code for determining at least one a second available switch port having a capability to handle a second access point group, said second access point group having a second default switch port (*the same procedure is followed for each local area network connected to the switch for determining a transmission port - Column 7, Lines 20-30; Column 10, Lines 49-67; Column 11, Lines 1-15*).

Consider **claim 14**, as applied to claim 13 above, Gai et al. as modified by Eglin further discloses code for provisioning at least a third available switch port to provide service to said second access point group (*Column 10, Lines 1-12; Column 11, Lines 8-24 and 41-51; Column 12, Lines 19-27*).

Art Unit: 2617

Consider **claim 15**, as applied to claim 14 above, Gai et al. as modified by Eglin further discloses code for switching between any two of said at least one available switch port, said at least a second available switch port and said at least a third available switch port (*Column 11, Lines 8-24 and 41-51; Column 12, Lines 19-27 and 32-42*).

Consider **claim 16**, as applied to claim 9 above, Gai et al. as modified by Eglin further discloses code for switching between said default switch port and said at least one available switch port in a time period less than on the order of a few milliseconds from at least one of a detectable link failure and a configuration change (*change occurs at or about the same instant, and the connection is tested every few milliseconds – Column 12, Lines 4-12; Column 14, Lines 40-51*).

Consider **claim 18**, as applied to claim 17 above, Gai et al. as modified by Eglin further discloses that said at least one processor adapted to select said at least one available switch port from a reserved pool of available switch ports (*Figure 3D – Column 11, Lines 41-52; Column 12, Lines 13-27 and 37-42 and 46-55*).

Consider **claim 19**, as applied to claim 18 above, Gai et al. as modified by Eglin further discloses that said at least one processor adapted to return said selected at least one available switch port to said reserved pool of available switch ports upon abatement of a need to utilize said provisioned at least one available switch port (*Figure 3E – Column 14, Lines 37-48*).

Consider **claim 20**, as applied to claim 17 above, Gai et al. as modified by Eglin further discloses that said at least one processor adapted to select said at least one available switch port from at least one of a first switching element and a second switching element, said first default switch port being associated with said first switching element (*the different ports of the access*

Art Unit: 2617

switch are connected to different backbone switches, additionally some local area networks can communicate directly with more than one switch – Column 10, Lines 49-67; Column 11, Lines 1-7 and 8-24 and 41-51; Column 12, Lines 19-27).

Consider **claim 21**, as applied to claim 17 above, Gai et al. as modified by Eglin further discloses that said at least one processor adapted to determine at least one a second available switch port having a capability to handle a second access point group, said second access point group having a second default switch port *(the same procedure is followed for each local area network connected to the switch for determining a transmission port - Column 7, Lines 20-30; Column 10, Lines 49-67; Column 11, Lines 1-15).*

Consider **claim 22**, as applied to claim 21 above, Gai et al. as modified by Eglin further discloses that said at least one processor adapted to provision at least a third available switch port to provide service to said second access point group *(Column 10, Lines 1-12; Column 11, Lines 8-24 and 41-51; Column 12, Lines 19-27).*

Consider **claim 23**, as applied to claim 22 above, Gai et al. as modified by Eglin further discloses that said at least one processor adapted to switch between any two of said at least one available switch port, said at least a second available switch port and said at least a third available switch port *(Column 11, Lines 8-24 and 41-51; Column 12, Lines 19-27 and 32-42).*

Consider **claim 24**, as applied to claim 17 above, Gai et al. as modified by Eglin further discloses that said at least one processor adapted to switch between said default switch port and said at least one available switch port in a time period less than on the order of a few milliseconds from at least one of a detectable link failure and a configuration change *(change*

occurs at or about the same instant, and the connection is tested every few milliseconds –

Column 12, Lines 4-12; Column 14, Lines 40-51).

Consider **claim 25**, as applied to claim 17 above, Gai et al. as modified by Elgin further discloses that said at least one processor is at least one of a switch processor, a bandwidth management controller, a quality of service controller, a load balancing controller, a session controller, and a network management controller (*Column 10, Lines 1-12; Column 11, Lines 8-24 and 41-51; Column 12, Lines 19-27*).

Conclusion

7. The prior art made of record and not relied upon and is considered pertinent to applicant's disclosure is listed below.

US 20040008682 A1	Flexible scheduling of network devices within redundant aggregate configurations	Miriyala, Prasad
US 20030016624 A1	Path recovery on failure in load balancing switch protocols	Bare, Ballard C.
US 6006090 A	Providing roaming capability for mobile computers in a standard network	Coleman; Arthur Bernard et al.
US 20030048746 A1	Metropolitan area local access service system	Guess, Michael et al.
US 6965775 B2	Service-oriented protection scheme for a radio access network	Antoniou; Zoe et al.
US 6308282 B1	Apparatus and methods for providing fault tolerance of networks and network interface cards	Huang; Jiandong et al.

Art Unit: 2617

8. Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314


9. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Simon A. Goetze whose telephone number is (571) 270-1113. The Examiner can normally be reached on Monday-Thursday from 7:30am to 5:00pm and Friday from 7:30am to 4:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Nick Corsaro can be reached on (571) 272-7876. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Art Unit: 2617

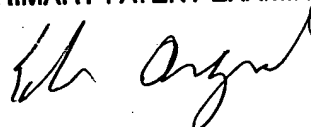
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.



Simon A. Goetze
S.A.G./sag

January 22, 2007

EDAN ORGAD
PRIMARY PATENT EXAMINER



1/22/07